

**REMARKS/ARGUMENTS**

Reconsideration and allowance of this application are respectfully requested. Currently, claims 1-4, 7-11, 14-21 and 23-26 are pending in this application.

**Allowable Subject Matter:**

Claims 1-4, 7-11 and 14-20 have been indicated as being allowable.

The Office Action stated that claim 24 was objected to as being dependent upon a rejected base claim, but held that this claim would be allowable if rewritten in independent form. Claim 24 has now been rewritten in independent form and is thus allowable.

**Rejection Under 35 U.S.C. §112:**

Claim 21 was rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the Office Action states that “The claim limitation drawn to ‘[a] medium which is detachably attached to a game machine...’ has not been disclosed in the instant Application. Therefore, this limitation is deemed new matter.” Applicant respectfully traverses this rejection. That is, Applicant submits that the above-noted claim limitation is disclosed the originally-filed specification, and is thus not new matter.

For example, page 14, lines 16-17 of the originally-filed specification states “The sound generation device includes a main unit 10 and game cartridge 30 removably inserted into the main unit 10.” The game cartridge includes a board 35. An XY-axes acceleration sensor 31, a sensor interface circuit 32, a program ROM 33, and a backup RAM 34 are mounted on the board 35. (Page 15, lines 1-7 of the originally-filed specification). The originally-filed specification further discloses “The XY-axes acceleration sensor 31 and the sensor interface circuit 32 are provided for obtaining a tilt of the main unit 10 (that is, a tilt of the game device housing 11)

during a time period when game cartridge 30 is inserted into the main unit 10.” (See page 16, lines 13-17).

Nevertheless, to make it even clearer that this limitation is supported by the originally-filed specification, claim 21 has been amended to require “a medium which is ~~detachably attached~~removably inserted into a game machine.” As described in the above-noted portions of the originally-filed application, this limitation is explicitly supported. Applicant thus respectfully requests that the rejection of claim 21 under 35 U.S.C. §112, first paragraph, be withdrawn.

**Rejections Under 35 U.S.C. §103:**

Claim 21 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over Por Paul (U.S. ‘438) in view of Wheaton (U.S. ‘956). Applicant respectfully traverses this rejection.

In order to establish a *prima facie* case of obviousness, all of the claim limitations must be taught or suggested by the prior art. The combination of Por Paul and Wheaton fails to teach or suggest all of the claim limitations. For example, the combination fails to teach or suggest a medium which has a tilt detector and which is removably inserted into a game machine to detect the tilting of the game machine’s housing.

Section 4 of the Office Action admits “Por Paul does not disclose the use of a detachably attached medium having a storage, program processor, and sound outputting unit.” This statement appears to express a misunderstanding of the invention. In the preamble of claim 21, the data storing area, program processor and sound outputting unit are components (along with a housing) of the game machine, not of the medium itself. The medium can be, however, inserted into the game machine.

Section 4 of the Office Action further states “Wheaton discloses the use of a tilt-activated detachably attached unit (10, fig. 1).” While collar 10 is attached to electronics unit 14, there is no teaching or suggestion of a medium which is removably inserted into a game machine having a housing, wherein the medium comprises a tilt detector for detecting tilt of the game machine’s housing. While collar 10 in Wheaton may be attached to electronics unit 14, the housing of electronics unit 14 is not tilted. Claim 21, in contrast, requires that the medium has a tilt detector and is removably inserted to a game machine to detect the tilting of the game machine’s housing.

Section 4 of the Office Action concludes by stating “Furthermore, the device taught by Por Paul (components within the hand held portion) appears to be functionally equivalent to placing components in either the hand held portion or the ‘machine’ portion.” This portion of the Office Action is unclear. If this portion of the Office Action means that it is functionally equivalent to place the tilt detector in the game machine or the medium to which the game machine is removably inserted, Applicant respectfully disagrees since placing a tilt sensor in a medium provides the advantage of allowing the specific tilt detector to be designed to the specific requirements of the game program stored by the medium (rather than being generally dedicated to all games by including the tilt sensor in the game machine itself). For example, one particular sound generation program may require a three-axis tilt detector, whereas a simpler sound generation program may require only a two-axis tilt detector.

The game machine referred to in claim 21 does not itself comprise a tilt detector therein. Instead, a medium comprising a tilt detector may be removably inserted into the game machine. In contrast, Wheaton discloses a device where outputting sound for which electronics unit 14 is separately provided. Accordingly, other than generating a signal for controlling a sound by detecting tilt, there is no similarity between the invention of claim 21 and Wheaton.

Claims 22, 23, 25 and 26 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Por Paul in view of Nakada et al (U.S. '299, hereinafter "Nakada"). Applicant respectfully traverses this rejection.

With respect to claim 23, Por Paul and Nakada fails to teach or suggest "wherein the tilt detector is arranged in a removable medium which stores a game program to be executed by the processor and which is connected to the housing." The Office Action alleges "Por Paul teaches that a separate (i.e., removed) device may be used to store data (col. 4, last sentence of the second paragraph)." This identified sentence of Por Paul states "Those skilled in the art will recognize that the memory function can alternatively be accommodated by a separate device." (Col. 4, lines 43-45). However, the "memory" noted in this portion of Por Paul refers to a tone memory capable of storing 32 tones or tones over an interval of 15 seconds. (Col. 4, lines 32-37). There is no teaching or suggestion in this portion of a tilt detector being arranged in the "separate device" noted in Por Paul.

Claim 25 requires "wherein the frequency of the sound waveform data is changed in a continuous manner." As described on page 22 of the specification, if the pitch is changed in a continuous manner, the sound generation device can output a sound at an intermediate pitch between a whole tone and a semi tone. As a result, the performer can cause the sound generation device to sing a song with vibrato, which enhances the enjoyment of performing music by the sound generation device. The Office Action (bottom of page 4) alleges that the above limitation of claim 25 is disclosed by Por Paul's disclosure of a large number of switches (adding switches "arrayed" in larger or fewer number with a greater or lesser circumference of arch). (Col. 3, lines 60-65). While Por Paul discloses adding switches, this would just merely provide

additional distinct tones, rather than changing pitch in a continuous manner so as to provide an intermediate pitch between those distinct tones.

Claim 26 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over the three-way combination of Por Paul, Nakada and Wheaton. Applicant traverses this rejection. Claim 26 requires “changing an amplitude of the sound waveform data in response to the output of the tilt detector.” While Por Paul is directed to a toy musical device for playing back tones in response to movement of the device as output, Wheaton is directed toward a microphone for receiving user audio input. The hypothetical combination proposed by the Office Action is thus improperly based on hindsight derived from Applicant’s own disclosure. Moreover, incorporating Wheaton’s volume control based on the angle of the microphone range would interfere with Por Paul’s operation which discloses pivoting the baton 12 in different directions to cause different generation of sounds. That is, since Por Paul already discloses generating different sounds for tilt in different directions, the proposed modification to control volume based upon a tilt in one of these directions would interfere with Por Paul’s operation.

Accordingly, Applicant respectfully requests that the rejection of claims 23, 25 and 26 under 35 U.S.C. §103 be withdrawn.

**KONDO et al.**  
**Application No. 10/623,491**  
**February 17, 2006**

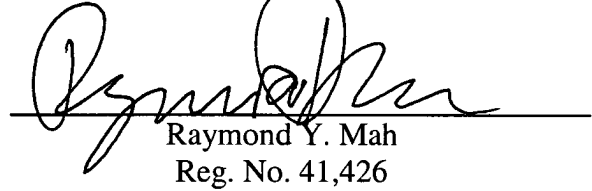
**Conclusion**

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:

  
Raymond Y. Mah  
Reg. No. 41,426

RYM:sl  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100